

**SERVICE AND MAINTENANCE OF AERCO BENCHMARK BOILERS**
**Date of Issue: April 30, 2024**
**No: SO-GA 2016-01  
Revision: 01**

This safety order is issued pursuant to section 31 of the Safety Standards Act. A person affected by this safety order may appeal this order in writing to the Safety Standards Appeal Board within 30 days. The appeal process is set out on the Safety Standards Appeal Board's website at [www.gov.bc.ca/safetystandardsappealboard](http://www.gov.bc.ca/safetystandardsappealboard).

Failure to comply with a safety order is an offence under section 72 of the Safety Standards Act.

**Part 1: Details of Regulated Work or Regulated Product**

This safety order is being issued in relation to:

	Regulated Work – General			Regulated Product – General
	Regulated Work – Specific Class			Regulated Product – Specific Class
	Specific Regulated Work		<b>X</b>	Specific Regulated Product

**Part 2: Requirement(s) of this Safety Order**

The following gas boilers manufactured by AERCO International Inc. are affected:

- AERCO Benchmark (BMK) gas fired hot water boilers series models; 1.5LN, 2.0LN, and 3.0LN that were discontinued between 2012 to 2013.

Owners of commercial or industrial buildings containing the boiler models identified must ensure combustion blower pre-purge settings have been updated by a licensed gas contractor and appropriately certified gasfitter. Pre-purge settings must provide four complete air changes of the boiler's combustion chamber and flue passages (includes connected venting) prior to an ignition cycle trial. Further action in accordance with AERCO's technical service bulletin number: TSB-2016-04 must be followed.

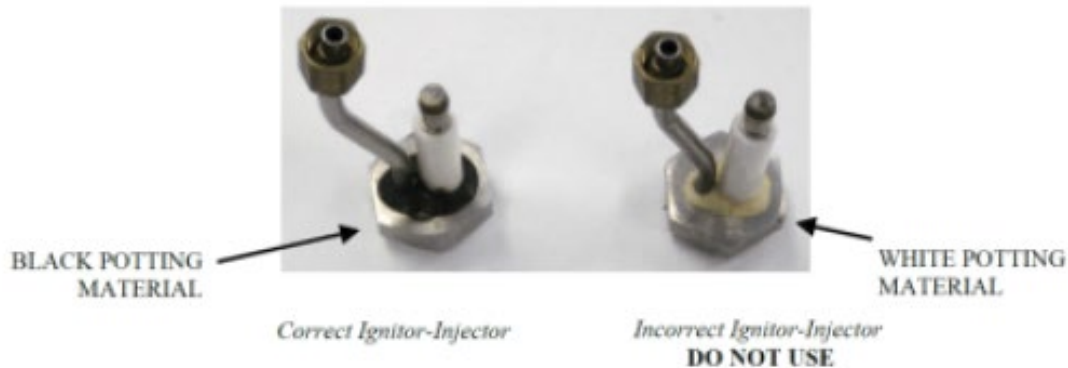
Boilers must be inspected at least annually by a licensed gas contractor and must be certified by a gasfitter to verify that the igniter-injector update kit P/N 58023 follows manufacturer's maintenance instructions. Replacement of the igniter-injector is required at least once every 24 months of operation or sooner if evidence shows substantial erosion or carbon build-up.

As shown in the following photo, only igniter-injectors with black potting material around the ceramic insulator must be used. **Do not** install legacy igniter-injectors with white potting material.

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Gas safety officers may request to see boiler maintenance and repair records.

Note: This safety order applies only to legacy models discontinued from 2012 to 2013, not current models of AERCO Benchmark boilers.

### **Part 3: Details of Issue**

This safety order is being issued to the following: owners of commercial or industrial buildings and licensed gas contractors and certified gasfitters.

Seven ignition related incidents since 2011 involving legacy AERCO Benchmark 1.5, 2.0 or 3.0 boilers were reported to Technical Safety BC. These incidents were classified as “hard light-offs” or “delayed ignitions” that generated a loud bang or pop during operation or start-up. All reported incidents resulted in damage to the connected venting system but with no injuries to people.

One incident found the boiler operating while the venting system was dislodged allowing products of combustion to spill into the building.

AERCO boilers require the combustion blower to spin-down from its pre-purge speed to an ignition cycle speed to assure proper air/fuel ratio is delivered to the premix burner for smooth light-off. If an ignition trial occurs with high excess air due to excess blower speed, the boiler may generate a flame loss during ignition fault code or result in a loud light-off without generating this code.

Incidents involving this type of product are required to be reported in accordance with the Safety Standards Act. If you discover any damage to your boiler, its venting system, or if you have experienced incorrect ignition cycles with your product, please report these events as detailed in our [Gas Incident and Hazard Reporting](#) information bulletin.

### **Part 4: Details of Ordering Safety Manager or Safety Officer**

I certify that I am authorized to issue this safety order in accordance with section 15 (d) of the Safety Standards Act or that I have been delegated this power under section 15 (g) of the Safety Standards Act.

Provincial Safety Manager - Gas

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**Safety Standards Act:**

## Safety Orders

- 31
- (1) To prevent, avoid or reduce risk of personal injury or damage to property, a provincial safety manager may, in writing, issue a safety order.
  - (2) A safety order may be issued to any person in relation to any of the following:
    - (a) regulated work or regulated products generally;
    - (b) a specific class of regulated product or regulated work;
    - (c) a specific regulated product or regulated work.
  - (3) For certainty, a safety order issued under this section may apply to
    - (a) regulated work that meets the requirements under this Act,
    - (b) regulated work that previously met the requirements under this Act or a former Act but does not meet the current requirements under this Act,
    - (c) regulated products that meet the requirements under this Act, or
    - (d) regulated products that previously met the requirements under this Act or a former Act but do not meet the current requirements under this Act, including a regulated product that bears a certification mark.
  - (4) A safety order may specify any requirement that is intended to prevent, avoid or reduce the risk of personal injury or damage to property and may include any of the following orders:
    - (a) that an existing regulated work or regulated product must be made safe in compliance with the safety order;
    - (b) that a regulated product must be
      - (i) disconnected from a power source,
      - (ii) uninstalled, or
      - (iii) modified before continued use;
    - (c) that a regulated product must be operated, installed, manufactured or disposed of only as specified or that a regulated product must not be moved;
    - (d) that current or future regulated work or a regulated product must conform to the terms or conditions of the order;
    - (e) that a person take or refrain from taking any action that a safety manager considers necessary to prevent, avoid or reduce a risk of personal injury to persons or damage to property;
    - (f) that the manufacturer make reasonable efforts to recall the regulated product.
  - (5) The provincial safety manager must give written notice of the safety order to the following persons:
    - (a) the manufacturer of the regulated product;
    - (b) an owner of the regulated product if the identity of the owner is known to the provincial safety manager;
    - (c) the person in charge of the regulated work.
  - (6) The notice must state the reasons for the decision and that the person has the right to appeal the decision to the appeal board.
  - (7) Despite section 54, a safety order may not be stayed during an appeal.

**References:**

Safety Standards Act

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